

GUIDELINES for PHY555A/556A: 2021-2022, 1st Semester

1. Objectives and course content

Student has to carry out work on a well-formulated and open-ended problem with physics content to serve as initiation to research. The projects can be experimental, theoretical, computational, or a suitable combination thereof.

2. Evaluation

Grading Scheme: Supervisor (60 Marks) and Committee (40 Marks)

- i. Supervisor: 60 Marks
 - Regularity and interactions (till mid-sem): 10 marks
 - Workwise progress (till mid-sem): 10 marks
 - Regularity and interactions (mid-sem to end-sem): 10 marks
 - Workwise progress (mid-sem to end-sem): 15 marks
 - Independent/original contribution (till end-sem): 15 marks
- ii. Committee: 40 Marks
 - Project reports: 15 marks
 - Seminar: 25 marks
 - Slide-organization and adherence to time-limit: 5
 - Overall clarity of talk and communication skills: 10
 - Questions & answers: 10

3. Course policies

- i. All reports / write-ups are to be sent to smt@iitk.ac.in
- ii. Strictly by 5:30pm of 17th August 2021 a short write-up is needed. The write-up should clearly mention the tentative title, the supervisor and the tentative plan of the project.
- iii. A mid-semester report, word count of about 500 words, detailing the progress and the difficulties, if any, and directions for their resolution has to be submitted. Those who will be continuing the project done in the preceding semester **must** add an additional paragraph of about 200-300 words detailing what had already been done in the project.
- iv. An end-semester report should be submitted in the form of a complete paper. Maximum length: 6 pages (including figures). Anything written beyond the sixth page will **not** be evaluated. The format must strictly be that of **Physical Review A, B, C, D or E**. The end-sem. report must emphasize the main Physics and the results.

- v. All the reports/write-ups mentioned above must be approved by the respective supervisor and should be emailed to smt@iitk.ac.in cc-ing your supervisor. Your report **must** bear your supervisor's signature without which the report will **not** be evaluated.
- vi. An end semester presentation (ppt or equivalent) is mandatory. The slides of the presentations should be nicely and professionally prepared. Duration of each talk will be of **15 minutes** plus the time required for questions and answers.
- vii. Any kind of plagiarism or any other form of unfair means at any stage of the project work will be very strictly dealt. **F grade** will be awarded and the case will be referred to higher authorities for further strict action.
- viii. Missing any of the deadlines (mentioned below) will result in “**minus 10**” marks.
- ix. The submission of the end-semester report and deliverance of the end-semester presentation is mandatory. Missing any one of these will straightaway fetch the student an **F grade**.
- x. It is the responsibility of the students (and not the supervisors or the instructor-in-charge) to maintain the attendance record of discussion sessions and have it **signed** after verification by the Supervisor(s) at the time of submitting end-semester report. Please find the attached format for this purpose. Non-compliance with this request will fetch the student “**minus 10**” marks.

4. Important dates and deadlines

- Tentative research plan: 17 August, 2021; 5:30 pm.
- Mid-sem report submission: 25 September, 2021; 5:30 pm.
- End-sem report submission: 10 November, 2021; 5:30 pm.
- End-semester seminar: 13 November, 2021.